

**INTEGRATION DECISION PAPER
(IDP):**

**Migration System Selection
for XYZ Functional Activity
(SAMPLE)**

CENTER FOR INTEGRATION AND INTEROPERABILITY

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EXECUTIVE SUMMARY

This Integration Decision Paper (IDP) summarizes the migration system decision to be implemented by the XYZ Functional Activity. This IDP documents the migration system selected and the projected costs to implement the selected system throughout the functional activity. This section also identifies the return on investment and payback period associated with implementing this decision. This document fulfills the requirement stated in DoD 8020.1-M to select a migration system for the affected functional activity.

It should be noted the information gathered for the Integration Decision Paper (IDP) can be reused as the information technology (IT) component of the Functional Economic Analysis (FEA) and functional process improvement (FPI) efforts required by DoD 8020.1 -M. This information can also be used to support future cross-functional integration efforts as part of ongoing DoD Enterprise Integration efforts.

Migration System Selection. The management of the XYZ functional activity has selected *System Delta* as its migration system. The implementation process associated with the proposed migration system is scheduled to be completed by the end of FY 1996.

Implementation Plan. Figure ES - 1 provides an overview of the proposed migration implementation plan:

Figure ES - 1, Action Plan GANTT Chart

<GRAPHIC: SAMP1.PCX:>

(Graphic files were not included on original disk.)

The migration to *System Delta* will be completed by 30 September 1996. All functional data used by the system will be standardized by 30 September 1995. *System Delta* will not be brought into full compliance with the DoD standard technical architecture by fiscal year (FY) 1996. This will not occur until the

implementation of the target system is completed after FY 2000. By FY 1 997, the migration system will make expanded use of mega-centers, base level infrastructure, and other components of the Defense Information Infrastructure (DII). Full implementation of the DII will occur after FY 2000 with the implementation of the target system.

Economic Analysis. Figure ES - 2 provides an overview of baseline costs, investment requirements, and operational savings associated with implementing the proposed migration solution.

<GRAPHIC: SAMP2.PCX>

Figure ES - 2, Life Cycle Cost Comparison of Baseline with Proposed Migration

This figure illustrates the anticipated savings from the implementation of the proposed migration system. The annual operating costs will be reduced from a total of \$36M to \$13M by FY 1997. Implementing the proposed migration system, *System Delta*, will result in a total of \$103M in operations savings over the proposed seven years of the system's life. This translates into a savings-to investment ratio of 5.7 to 1 over the first four years of the life cycle and 17.2 to 1 over the full seven years of the system's life. *System Delta* has a payback period equal to one year.

Financial Impacts. The financial impact of implementing the proposed solution is:

- ☒ The proposed Action Plan (i.e., implementation plan) may be implemented within current resources.
- ☐ Implementing the proposed Action Plan will require additional resources.

SECTION ONE: MIGRATION GOALS

This Integration Decision Paper (IDP) documents the results of a migration system selection process undertaken for the XYZ functional activity within the ABC functional area. This section of the IDP summarizes the status of related planning activities for both the functional area and functional activity, the status of the performance measures and targets used in the management of ongoing operations, and both near and long term goals for the XYZ functional activity.

1.1 Strategic Plans. The status of the strategic plans for both the ABC functional area and the XYZ functional activity is indicated below:

_____ Strategic plans have not been developed for this functional area/activity.

_____ Strategic plans for this functional area were published as _____. Functional activity strategic plans have not been completed.

 x Strategic plans for this functional activity were published as "Strategic Plans for XYZ" on February 15, 1994.

1.2 Performance Measures and Targets. The status of the performance measures and targets for the XYZ functional activity are indicated below:

_____ Performance measures and targets have not been developed for this functional activity. The target date for developing these performance measures is: _____

 x Performance measures and targets were developed and published as "Performance Measures and Targets for the XYZ Functional Activity " on February 28, 1994.

1.3 Near-Term Goals (1-3 years). The following near-term goals have guided the selection of the migration system for this functional activity:

- Migration system is fully implemented within the functional activity within three years.
- Migration system is fully converted to functional area standard data elements within three years.
- Functional Process Improvement (FPI) plan (and accompanying Functional Economic Analysis (FEA)) for the functional activity is in place; sixty percent of the FPI plan implemented within three years.
- Eighty percent of functional activity processes are fully integrated within the functional area.
- Sixty percent of the functional activity's information resources are provided by the DII.
- Forty percent of functional activity processes are cross-functionally integrated across the Defense Enterprise

1.4 Long-Term Goals (4-7 years). The following long-term goals have guided the selection of the migration system for this functional activity:

- The functional activity uses only databases shared with other functional activities within the functional area.
- All functional activity information infrastructure is fully compliant with the Technical Architecture Framework for Information Management (TAFIM).
- Ninety percent of the functional activity's information resources are provided by the DII.
- Eighty percent of functional activity processes are cross-functionally integrated across the Defense Enterprise.
- Forty percent of functional activity processes are functionally integrated with global organizations.

SECTION TWO: BASELINE ENVIRONMENT

2.1 Baseline Environment. Automated information management support for the XYZ functional activity is currently provided by five major and several smaller legacy applications. Each of the five major legacy applications support the basic data entry, activity processing, reporting and external system interface requirements of each service and agency within the functional activity.

Two of these baseline applications (*System Alpha and System Epsilon*) are base(or local-) level systems. Three of these baseline applications (*Systems Beta, Charlie, and Delta*) are corporate level systems. None of the other small systems incorporated enough functionality to warrant consideration as the migration system.

2.2 Baseline Workload Data. Schedule 1 summarizes the salient cost and workload data for each of the legacy applications within this functional activity.

Schedule 1 - Baseline Workload Data

<GRAPHIC: SDLE1.PCX>

2.3 Legacy Applications. Schedule 2 summarizes the basic characteristics of each legacy application.

Schedule 2 - Legacy Applications

<GRAPHIC: SDLE2.PCX

2.4 Baseline Technical Infrastructure. Schedule 3 characterizes the infrastructure used by each legacy application in this functional activity.

Schedule 3 - Baseline Technical Infrastructure

<GRAPHIC: SDLE3.PCX

SECTION THREE: TECHNICAL ASSESSMENT OF MIGRATION ALTERNATIVES

3.1 Technical Comparison of Legacy Applications. Schedule 4 includes migration assessment scores generated by the Defense Integration Support Tools (DIST) for each legacy application. Generally, these scores represent the relative ability of each legacy application to meet this functional activity's migration requirements.

Schedule 4 - Technical Comparison of Legacy Applications

<GRAPHIC: SDLE4.PCX>

3.2 Alternatives Identification. Using the technical comparison scores listed above, managers from this functional activity chose *Systems Charlie and Delta* as potential migration systems.

3.3 Functional and Operational Description of Each Alternative. *System Charlie* is a batch driven, mainframe based system which meets a sufficient number of the functional activity's core requirements. *System Delta* is a distributed system which addresses most of the functional activity's core requirements.

SECTION FOUR: ECONOMIC ANALYSIS OF MIGRATION ALTERNATIVES

This section compares the costs of the baseline system with the costs of the proposed migration alternatives.

4.1 Baseline IT Costs. Schedule 5 summarizes the annual information technology (IT) expenditures for each legacy application. They reflect only the IT component of each element of the current Functional Economic Analysis Model (FEAM) Cost Breakdown Structure (i.e., Civilian Labor, Military Labor, Equipment, Facilities, Materiel, General and Administrative (G&A), and Other).

Schedule 5 - Baseline IT Costs (Constant FY94 K\$)

<GRAPHIC: SDLE5.PCX>

4.2 Cost Comparison of Alternatives. Schedule 6 compares the annual investment and operations costs of each migration system alternative with the annual operations costs of the baseline environment.

Schedule 6 - Comparison of Annual IT Costs

<GRAPHIC: SDLE6.PCX>

4.3 Annual Cost Reductions. Schedule 7 shows the cost reductions achieved for each alternative by fiscal year. This table presents both the payback period for the investment in each system as well as both a four year and seven year return on investment (ROI) calculation. This calculation shows the savings to investment ratio for each alternative for each period.

Schedule 7 - Annual Cost Reductions and Economic Analysis Factors

<GRAPHIC: SDLE7.PCX>

SECTION FIVE: PROPOSED MIGRATION SOLUTION

This section summarizes the selected migration system and describes the selected system's proposed configuration.

5.1 Migration System Selection. The functional management of the XYZ functional activity has selected *System Delta* as the migration system. The proposed migration is scheduled to be completed by the end of FY 1996. Schedule 8 summarizes data concerning the selection and implementation of the migration system. *System Delta* was selected as the migration system because it supports all the major functional requirements identified for the XYZ functional activity, its relatively high score in the technical evaluation, and its savings-to investment ratio.

Schedule 8 - Migration Decision Considerations

<GRAPHIC: SDLE8.PCX>

The economic rationale for the selection of *System Delta* as the migration system is as follows. Baseline operations and maintenance (O&M) requirements for this functional activity (excluding investment requirements) are approximately \$36M annually (constant FY 1994 dollars). This figure includes all software maintenance and communications charges for all systems currently supporting operations within the functional activity. The proposed migration would require a total investment of approximately \$6M over the proposed four year implementation schedule, including approximately \$3M of investment in the first year. However, substantial cost reductions would be generated by the proposed migration- a total of approximately \$103M during the period FY 1995 through FY 2000. This information is presented graphically in figure ES - 2. Failure to deploy the proposed migration system will result in higher levels of annual O&M expenditure and will result in ongoing opportunity losses from continuing baseline operations equal to approximately \$1.9M per month.

5.2 Migration Workload Data. Schedule 9 includes workload information for the proposed solution, *System Delta*.

Schedule 9 - Migration Workload Data

<GRAPHIC: SDLE9.PCX>

5.3 Migration Applications. Schedule 10 includes applications information for the proposed solution, *System Delta*.

Schedule 10 - Migration Applications

<GRAPHIC: SDL10.PCX>

5.4 Migration Technical Infrastructure. Schedule 11 summarizes general infrastructure characteristics for the proposed solution, *System Delta*.

Schedule 11 Migration Technical Infrastructure

<GRAPHIC: SDL11.PCX>

5.5 Migration OSE Compliance. As shown in schedule 12, *System Delta* would meet selected Open Systems Environment (OSE) requirements approved in the Technical Reference Model (TRM) of DoD's TAFIM (November 1993).

Schedule 12 - Migration OSE Compliance

<GRAPHIC: SDL2.PCX>

5.6 Projected Costs for Selected Migration Solution. Schedule 13 provides estimated annual costs for the proposed migration solution, *System Delta*.

Schedule 13 - Projected Costs for Selected Migration Solution

<GRAPHIC: SDL13.PCX>

SECTION SIX: MIGRATION PLAN

This section summarizes the timing and schedule needed to initiate the migration path.

6.1 Migration Path and Timing. Schedule 14 includes the migration path and timing for the proposed migration solution, *System Delta*.

Schedule 14 - Migration Path and Timing

<GRAPHIC: SDL14.PCX>

6.2 Proposed Migration Implementation Schedule. Schedule 15 shows the implementation schedule needed to initiate the migration solution.

Schedule 15 - Action Plan

<GRAPHIC: SDLE15.PCX>

SECTION SEVEN: RISK ASSESSMENT

This section discusses project risk as it affects the deployment of the proposed migration system.

7.1 Risk Assessment. The Functional Area Program Manager (FAPM) for functional activity XYZ and the Joint Functional/Technical Team have reviewed the risks associated with the proposed migration selection. The status of the risk assessment is as follows:

<u> x </u>	A formal risk assessment has not been developed for this functional activity. The target date for completing this risk assessment is 30 September 1994.
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The risk assessment associated with this proposed migration was completed and published on

7.2 Major Risk Area Identification. Based on the completed risk analysis, the FAPM determined that the following risk areas must be addressed. The first major risk area is that technology may not be available to allow the XYZ functional activity to extend full baseline functionality to the selected migration system, *System Delta*. The second major risk area is that sufficient resources may not be available to allow timely implementation of the proposed migration.

7.3 Recommendation to Reduce the Risk Level of Major Risk Areas. The XYZ functional activity could reduce the risk levels associated with the proposed migration through the following actions. Immediately after the migration decision is approved, XYZ's functional management should attempt to consolidate representative functions into *System Delta*. If the consolidation fails, management would then know that it needs to consider other alternatives. Further, the XYZ functional activity could reduce the risk that funds will be unavailable by identifying the cost-effectiveness of migrating functionality from other functional activities within the same functional area. If these other migration plans are not as cost effective as the proposed migration plan (which is anticipated) then the ABC functional area's principal staff assistant (PSA) will know to reallocate budget resources from the other functional activities to this functional activity.

7.4 Contingency Plans. The management the XYZ functional activity should consider the cost-effectiveness of other alternatives if, after the migration implementation process is initiated, the unavailability of required technology acts as a restriction on timely implementation of the migration system. Further, the PSA should consider the effectiveness of reallocating budget from other functional activity accounts to this migration effort if resources are inadequate.

SECTION EIGHT: IMPACTS, ISSUES, AND CONCERNS

8.1 Organizational Impacts. The XYZ functional activity's migration path toward Corporate Information Management (CIM) objectives will keep the organization viable, since these objectives must be met by all agencies within DoD.

8.2 Personnel Impacts. Although numerous managers and operating personnel may be dislocated by the increased productivity made possible by the implementation of the migration system, the management of the XYZ functional activity does not anticipate any changes in overall personnel levels to result from the implementation of the proposed migration system.

8.3 Operational Issues and Resolutions. The following operational issues and resolutions have been identified.

8.3.1 Issue Identification. Migration implementation may impede the XYZ functional activity's operations if the transition from the baseline to *System Delta* does not proceed smoothly. For example, if planners have underestimated the time needed to migrate all baseline operations to *System Delta*, the functional activity may experience budget pressure to consolidate and discontinue baseline operations before the migration system is capable of addressing all the stated functional requirements.

8.3.2 Issue Resolution. The XYZ functional activity could use a combination of interim testing and close-watching methods to resolve the transition issue identified above. For example, the Integration Manager (IM) for this functional area could recommend to XYZ management that they perform an interim migration test to verify the smoothness of the transition. Specifically, the IM could suggest XYZ management migrate a selected set of baseline functions before it migrates all the functions supported by the migration system. If the selected set of baseline functions transition smoothly, XYZ management could sequentially migrate additional sets of functions until full baseline functionality is achieved. The IM should request the responsible PSA to seek assistance from the DoD Information Policy Council or the Corporate Functional Integration Board (CFIB) in the event interim testing has the potential to effect DoD migration plans.

8.4 Other Issues and Concerns. XYZ functional management has not identified any additional issues to be addressed as part of this IDP.